

## SYSTEM FOR GUIDING A MEDICAL INSTRUMENT IN A PATIENT BODY

### **Abstract of the disclosure:**

The present invention relates to a system for guiding a medical instrument in a patient body. Such a system comprises means for acquiring a 2D X-ray image of said medical instrument, means for acquiring a 3D ultrasound data set of said medical instrument using an ultrasound probe, means for localizing said ultrasound probe in a referential of said X-ray acquisition means, means for selecting a region of interest around said medical instrument within the 3D ultrasound data set and means for generating a bimodal representation of said medical instrument detection by combining said 2D X-ray image and said 3D ultrasound data set. A bimodal representation is generated on the basis of the 2D X-ray image by replacing the X-ray intensity value of points belonging to said region of interest by the ultrasound intensity value of the corresponding point in the 3D ultrasound data set.